



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,948	09/25/2003	Remmelt Pit	HSJ9200030207US1	2049

7590 02/08/2005  
John L. Rogitz  
Rogitz & Associates  
Suite 3120  
750 B. Street  
San Diego, CA 92101

EXAMINER

OLSON, JASON C

ART UNIT PAPER NUMBER

2651

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/670,948

Applicant(s)

PIT ET AL.

Examiner

Jason C Olson

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05/25/2003
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the current drawing do not meet requirements. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 8, and 10-14 rejected under 35 U.S.C. 102(b) as being anticipated by Sugimoto (US 6,437,948).

Regarding claim 1, Sugimoto teaches at least one rotatable disk (col. 4, ln. 61), at least one slider juxtaposed with the disk (col. 4, ln. 59-61); a suspension holding the slider (col. 4, ln. 58-60); and a roll static attitude (RSA) bias mechanism coupled to the suspension to establish a RSA of the slider (col. 5, ln. 43-48; it is interpreted by the examiner that the piezoelectric (PZT) actuator, which acts as a suspension moving means, is an RSA bias mechanism).

Art Unit: 2651

Regarding claim 2, Sugimoto teaches wherein the RSA bias mechanism includes at least one piezoelectric structure bonded to the suspension (see col. 5, ln. 48-53).

Regarding claim 3, Sugimoto teaches further comprising a HDD controller actuating the RSA bias mechanism (see col. 6, ln. 40-57; it is interpreted by the examiner that the adjusting means and adjustably changing the actuator force in the HDD controlling the actuator of the RSA).

Regarding claim 4, Sugimoto teaches wherein the HDD controller actuates the RSA bias mechanism to establish a zero RSA during read and write operations (see col. 8, ln. 22-28; it is interpreted by the examiner that the second lower position wherein the head is loaded on the disk establishes a zero RSA in which read and write operation occur).

Regarding claim 5, Sugimoto teaches wherein the HDD controller actuates the RSA bias mechanism to establish a non-zero RSA during ramp load and unload operations (see col. 8, lns. 12-22 and 29-40; it is interpreted by the examiner that a first high position establishes a non-zero RSA during ramp loading and unloading).

Regarding claims 7, 8, and 10: claims 7, 8, and 10 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above. Claim 7 however also recites the following limitations as taught by Sugimoto: at least one roll static attitude (RSA) bias mechanism coupled to the slider to turn the slider (see col. 5, ln. 43-48; it is interpreted by the examiner that when the PZT bias mechanism actuates, the slider is rotated or turned about an axis that runs perpendicular to the suspension arm).

Regarding claims 11-14: claims 11-14 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

Art Unit: 2651

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto and Kelemen (US 6,757,124).

Regarding claims 6 and 9, Sugimoto teaches all the limitations of claims 1 and 7 above and further disclose the RSA is implemented by actuating the RSA bias mechanism to bend a flexure of the suspension (see figures 4 and 5, items 36, 38, and 46) but fails to explicitly disclose to bend a flexure of the suspension to cause an inner edge of the slider to be higher relative to the disk than an outer edge of the slider. However, Kelemen is relied upon to teach bending a flexure of the suspension to cause an inner edge of the slider to be higher relative to the disk than an outer edge of the slider (see col. 8, line 1-4 and figure 9, item 120, of Kelemen, which depicts an inner edge of the slider to be higher relative to the disk than an outer edge of the slider). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon bending a flexure of the suspension of Sugimoto by applying the teaching of rolling or rotating a flexure of the suspension to move the slider in a clockwise or counter-clockwise motion as taught by Kelemen for the purpose as stated in column 8, on lines 8-13 by Kelemen.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.


Art Unit: 2651

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO

February 3, 2005



DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600